

**Shared Switches for Wires Ha, Hd and Hg**

Switch[] switches = new Switch[6]

Horizontal Wires Ha, Hd and Hg

horizontalWires[Ha] = new Wire(0, 0, switches);

horizontalWires[Hd] = new Wire(0, 1, switches);

horizontalWires[Hg] = new Wire(0, 2, switches);

Fig. 1

Defining a plurality of blocks each having a regular sub-array of switches and wires

Identifying a switch at a relative location along a first wire within a first plurality of blocks

Identifying another switch at the relative location along a second wire within a second plurality of blocks

Defining a first wiring object with first switch information and first wire identity information to identify a first wire

Defining a second wiring object with first switch information and second wire identity information to identify a second wire

Defining a first switch object having wire information and associated with the first and second wiring objects for identifying wires respectively connected to the first and second wires by a switch as a function of wire identity information and the wire information.

Fig. 2

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